



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/606,734	06/29/2000	David L. Black	07072-113001	6696
45456	7590	01/24/2006	EXAMINER	
RICHARD M. SHARKANSKY PO BOX 557 MASHPEE, MA 02649			NGUYEN, THAN VINH	
			ART UNIT	PAPER NUMBER
			2187	

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/606,734

Applicant(s)

BLACK ET AL.

Examiner

Than Nguyen

Art Unit

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 and 27-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6, 8-10 and 16-18 is/are allowed.
- 6) ☒ Claim(s) 7, 15, 29 and 30 is/are rejected.
- 7) ☒ Claim(s) 11-14 and 19-22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>11/7/05</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. This is a response to the amendment, filed 11/7/05.
2. Claims 1-22 and 27-30 are presented for examination.
3. The IDS, filed 11/7/05, has been considered.
4. Applicant's arguments and amendment with respect to the rejections to claims 1,4 and 7,11-14,15,19-22 under 35 USC 112 has been considered and deemed persuasive to overcome the previous rejection. This rejection is withdrawn.
5. Applicant has added new claims 27-30 with limitations not previously considered. These claims are addressed below.

### ***Response to Arguments***

6. Applicant's arguments, see page 18 of amendment, filed 11/7/05, with respect to claims 1 and 4 have been fully considered and are persuasive. The rejection of claims 1 and 4 has been withdrawn. The prior art of record does not teach nor suggest the limitations cited in the argument.
7. Applicant's arguments filed 11/7/05 regarding claims 7 and 15 have been fully considered but they are not persuasive. Applicant used the same argument to argue claims 1, 4, 7, and 15. However, claims 7 and 15 do not have the same set of limitations as that of claims 1 and 4. Thus, Applicant's arguments regarding claims 1 and 15 are non-responsive and irrelevant to the rejections to claims 7 and 15. The Examiner maintains the rejections to these claims.

### ***Claim Rejections - 35 USC § 103***

Art Unit: 2187

8. Claims 7,15,29,30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung et al (USP 6,470,389) in view of Ethridge et al (US 6,466,572).

As to claim 7,15:

9. Chung teaches a method for transferring data between a host computer and a bank of disk drives through a system interface, such system interface comprising: a plurality of directors coupled to the host computer; a plurality of second directors coupled to the bank of disk drives; a data transfer section coupled to the plurality of first directors and second directors; and a messaging network coupled to the plurality of first directors and the plurality of second directors, such first and second directors controlling data transfer between the host computer and the bank of disk drives in response to messages passing between the directors through the messaging network as such data passes through the data transfer section, such method comprising:

determining, in a transmitting of the directors, that action is requested by receiving the director(s) (client request; abstract);

preparing a message to be sent to the director(s) (generate packet; 5/59-62);

building a descriptor comprising a command field indicating the director(s) to receive the built message and storing the built descriptor in a memory within the transmitting of the directors (destination address; 2/18);

retrieving the stored descriptor in such transmitting one of the directors (provide address; 2/18-25);

encapsulating the message payload of the retrieved descriptor into a MAC type packet, such packet comprising:

Art Unit: 2187

a header, such header including: a source portion indicating the transmitting director; a destination portion indicating the receiving director (header of packet; 2/1-3/58);

the message payload (the request; 2/1-67);

transmitting the packet to the director(s) through the network (send packet over network/ 1/57-2/50);

decoding the destination portion of the packet to route the packet to the receiving director (route packet to destination 7/39-8/15).

Chung does not specifically teach incrementing a pointer or counter in the transmitting directors each time a descriptor is ready to be retrieved from the memory and decrement the pointer or counter when the descriptor is retrieved from the memory. It is common in the art to use a counter to keep track of data packets sent and received. Ethridge teaches incrementing a counter when a packet is received and decrementing the counter when the packet frame is transmitted to keep track of the packets (18/18-23, 23/61-62, 24/20-24).

It would have been obvious to one of ordinary skills to use Ethridge's teachings, in the invention of Chung, to teach incrementing a pointer or counter in the transmitting directors each time a descriptor is ready to be retrieved from the memory and decrement the pointer or counter when the descriptor is retrieved from the memory to track the descriptors/packets.

As to claim 29,30:

Art Unit: 2187

10. Chung teaches the messages (packets which include messages and data) pass between the directors (servers and clients) through the messaging network as the data passes through the data transfer section (data and message packets both pass through network/internet using dispatcher and routers; Fig. 1-5).

***Allowable Subject Matter***

11. Claims 2,3,5,6,8,9,10,16-18 are allowed for reasons indicated in the previous office action.

12. Claims 11-14 and 19-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. These claims are allowable for reasons indicated previously

13. Claims 1,4,27, and 28 are allowed for reasons indicated above.

***Conclusion***

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

Art Unit: 2187


advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Than Nguyen whose telephone number is 571-272-4198.

The examiner can normally be reached on 8am-3pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Than Nguyen can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Than Nguyen  
Primary Examiner  
Art Unit 2187